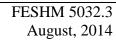


FESHM 5032.3: TRANSPORTING GASES IN BUILDING ELEVATORS

Revision History

Author	Description of Change	Revision Date
Michael	Incorporated comments from experts and	December 2013
Geynisman	includes minor editorial changes.	
	 Remove "fully empty" condition from definition Include "all dewars" in scope Remove list of dewar types Added "personnel not permitted to ride in elevator with dewars" Restricted number of dewars in elevator to two at a time Included requirements for properly parking the cart where dewar is seated Added a statement related to no stopping at intermediate floors 	
Akadiy Klebaner	Incorporated comments from experts and includes minor editorial changes.	February 2011
	Changed Division/Section to Division/Section/Center Changed Laboratory Safety Committee to FESHCom	

Fermilab ES&H Manual 5032.3-1



Fermilab ES&H Manual



TABLE OF CONTENTS

1.0	INTRODUCTION		
	DEFINITIONS		
	RESPONSIBLILITIES		
•••	4.1 Scope		
	4.2 Inspection		
	4.3 Moving the dewar		
5.0	PROCEDURES FOR GAS CYLINDERS.		
	5.1 Scope		
	5.2 Moving the cylinders		



1.0 INTRODUCTION

Transporting cryogenic dewars and room temperature gas cylinders in enclosed building elevators could be hazardous to passengers under certain conditions. This chapter defines procedures to be used for this operation at Fermilab.

DEFINITIONS 2.0

A building elevator is an enclosed car which has only a fan for ventilation when the door is closed.

Platform lifts with no sides or roof are not included in this chapter.

3.0 RESPONSIBLILITIES

The Division/Section/Center head who controls the operation using the dewar or gas cylinder is responsible for carrying out the requirements of this chapter. The Cryogenic Safety Subcommittee will serve the Division/Section/Center head as consultant in all matters concerning this chapter. The ESH&Q Section shall audit divisions/sections for compliance to this chapter.

4.0 PROCEDURE FOR CRYOGENIC DEWARS

4.1 Scope

This procedure is to be followed when transporting all dewars, whether open or closed mouthed dewars, in enclosed elevators.

Open-flask style dewars are not to be used for transporting liquid in elevators.

4.2 Inspection

Before a dewar is placed on the elevator, it is to be inspected for the following:

- a. No frost, sweating, or venting of dewar contents may be present to transport a dewar.
- b. The pressure building valve(s) must be closed on any dewar transported in an elevator.
- c. The pressure of any dewar to be loaded into an elevator must be less than 1/2 of the pressure setting of the dewar's main relief valve.

Fermilab ES&H Manual 5032.3-2



4.3 Moving the dewar

The dewar must be moved according to the following:

- a. Personnel is not permitted to ride in elevator with dewars.
- b. Not more than two dewars may be moved on an elevator at a time.
- c. Transport of cryogens in the Wilson Hall elevators is prohibited except by explicit written permission from Fermilab ESH&Q Director. The ESH&Q Director approval is documented by his/her signature on a written Hazard Analysis for the transportation of a dewar(s) in the Wilson Hall elevators.
- d. A dewar must not be removed from its transporting cart. If a dewar is transported seated in the cart, then the cart must be properly parked inside the elevator car.
- e. The elevator must be programmed not to stop or open the doors before it reaches the destination floor. Authorized personnel must be the first at the destination floor to enter the elevator car.

5.0 PROCEDURES FOR GAS CYLINDERS

5.1 Scope

This procedure is to be used for moving all gas cylinders in enclosed elevators.

5.2 Moving the cylinders

- a. Gas cylinders to be moved must have the valve cap securely in place.
- b. Gas cylinders must be moved on a cylinder cart. The cylinders shall be belted or chained to the cylinder cart.

Fermilab ES&H Manual 5032.3-3